

REMARKS

Claims 1-33 are all the claims presently pending in the application.

It is noted that the claim amendments, if any, are made only for more particularly pointing out the invention, and not for distinguishing the invention over the prior art, narrowing the claims or for any statutory requirements of patentability. Further, Applicant specifically states that no amendment to any claim herein should be construed as a disclaimer of any interest in or right to an equivalent of any element or feature of the amended claim.

Claims 1-33 stand rejected under 35 U.S.C. § 101 as allegedly directed to non-statutory subject matter. Claims 1-33 stand rejected under 35 U.S.C. § 102(a) as anticipated by the inventors' IEEE presentation for a conference dated December 9, 2002, wherein some aspects of the present invention were published.

These rejections are respectfully traversed in the following discussion.

I. THE CLAIMED INVENTION

The claimed invention, as exemplarily defined in independent claim 1, is directed to a method of processing an inductive learning model for a dataset of examples. The dataset is divided into a plurality of subsets of data. An estimated learning model for the dataset is then developed by developing a learning model for a first subset of the plurality of subsets.

Conventional methods, as described at line 21 of page 3 through line 6 of page 4, of learning model methods for a database require that the entire database be evaluated before the effects of hypothetical parameters for a test model are known. This process can take many hours (or days) and be costly, so that it can be prohibitive to spend so much effort in the development of an optimal model to perform the intended task.

In contrast, the present invention provides a method to develop an inductive learning model in much shorter time, including an estimate of the accuracy of the model as currently developed and an estimated cost to develop a complete model of the entire database.

II. THE 35 USC §101 REJECTION

Claims 1-33 stand rejected under 35 USC §101 as allegedly directed to non-statutory subject matter.

As best can be deciphered in the revised rejection in paragraph 5, beginning on page 2 of the Office Action, the Examiner rejects the present invention under 35 USC §101 for two reasons:

1. The invention is an “abstract idea” and/or “preemption of applications”; and
2. The “signal bearing media” terminology used in claim 14-19 renders these claims non-statutory because the specification refers to signal bearing media as including transmission media such as digital and analog communications.

The Abstract Idea/Preemption Rationale

As best can be deciphered, the Examiner considers that the “... *claims and specification recite preemption of applications for the invention*” because “[p]aragraph 0006 of the application illustrate[s] the invention is an abstract concept due to its many applications [having] both known and unknown uses. Paragraph 0213 discloses numerous areas in which the invention can be employed thus indicating the invention falls within the domain of being an abstract concept. In addition paragraph 0213 recites both known and unknown applications thus the specification confirms preemption. In paragraph 0215, the specification affirms both the invention is an abstract concept and preemption. ‘One of ordinary skill in the art, after having read the present application, would readily recognize that this commercial aspect could be implemented in a variety of ways.’ The ability of the invention ‘could be implemented in a variety of ways’ indicates the invention falls within the domain of an abstract concept. The phrase ‘variety of ways’ illustrates preemption.”

In response, Applicants respectfully submit that the present invention is not an abstract idea or an idea in the abstract and that there is no case holding that even defines “abstract idea”, let alone defining it in the manner described above by the Examiner.

Relative to the aspect of overbreadth, Applicants point out that overbreadth is a function of the prior art, not abstractness.

The issue of statutory subject matter requires only that the Applicants can point to at least one practical application, not that Applicants limit the invention to specific applications, as the Examiner seems to think. The present invention can be used in any electronic database having the information content allowing the types of calculations described in the specification. That is the only application of the present invention and that application is even clearly described in the independent claims.

Relative to the Examiner's concern that abstraction is due to the wording in the specification that the commercial aspect could be implemented in a variety of ways, Applicants respectfully submit that this statement has nothing to do with whether the claimed invention is an abstract idea.

Relative to preemption, Applicants note that every patent claim inherently preempts something and that such preemption is the whole purpose of a patent claim. Merely describing a variety of ways to implement a method is not a basis for preemption and Applicants are aware of no case holding that so states, and the Examiner does not provide any citation.

It is noted that "preemption" relative to claimed inventions is usually considered as an issue if the invention could be reasonably considered as preempting a mathematical algorithm, as the holding in *Benson* held was legally true for the register shifting technique of converting between binary/BCD (even though any electronic engineer would explain that are, in fact, other ways to perform this conversion).

Regardless of whether one considers that the US Supreme Court was misled by the USPTO on that case, such issue of preemption is clearly not present in the case of the present invention, since, for whatever underlying mathematics might be described in the claims, the method of the independent claims clearly describes that this mathematics is claimed in a narrow practical application of that mathematics. Thus, there is no mathematical algorithm being claimed in the present application, and preemption is not an issue, not even in the sense of the holding of *Benson*.

It is further noted that method claims may indeed be directed to any and all possible applications, "both known and unknown", as the Examiner quite quaintly phrases it. That aspect is strictly a function of the method involved. In the present invention, however, the method claims only the narrow application of "processing an inductive learning model for a dataset of

examples”. Therefore, there is no attempt to claim any other application of the method steps, contrary to the Examiner’s characterization.

The independent claims describe a process wherein a model is estimated for the entire dataset by developing a model for a subset of the data. This shortening of the normal model development process allows the user to determine, within a short time and at much less cost than conventional methods, whether it is desirable to spend the time and effort to develop a model for the entire dataset.

If the estimated accuracy is acceptable, the use of dataset can proceed without the extensive testing of conventional methods. This reduction in time and expense clearly provides a practical result and the method is clearly applied as a very limited application.

The “Signal Bearing Media” Issue

On the top of page 4 of the Office Action, the Examiner writes:

“Claim 14-19 are rejected under 35 U.S.C. §101 by use of the term ‘signal bearing media.’ In ¶0206, the specification defines signal bearing media as ‘including transmission media such as digital and analog communications.’ Transmission media such as digital and analog communications are unable to store instructions.”

In response, Applicants simply do not get the point of this rejection. If one of ordinary skill in the art would agree with the Examiner that “... *digital and analog communications are unable to store instructions*”, then these transmission media are, according to the Examiner, simply not covered by these claims and the specification description is alleged by the Examiner as being incorrect.

However, this allegation is not an issue of statutory subject matter. It is, at most, an issue of interpretation for a court as to whether a transmission media is covered by “signal-bearing medium tangibly embodying a program of machine-readable instructions executable by a digital processing apparatus to perform a method of”

In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw this rejection.

III. THE PRIOR ART REJECTION

The Examiner alleges that Applicants' own publication dated December, 2002, anticipates the present invention.

In response, Applicants first submit that the IEEE publication in December, 2002, relates to a conference in Japan, held on December 9-12, as indicated by the attachment conference announcement. Therefore, to the extent that the Examiner relies upon this document, it has to be considered as effective on December 9, 2002, and would be disqualified as a prior art reference against the present invention because the December 3, 2003, filing date of the present application precedes the one-year protection period for using an inventor's own publication against himself.

Filed concurrently is a Rule 132 Declaration that formally declares that this publication is not by another, thereby disqualifying this publication by clarifying the issue of inventorship, as raised by the Examiner.

Second, Applicants submit that the present invention also includes aspects beyond those presented in the December 9-12 conference. Therefore, even if this document were qualified as a prior art reference, Applicant submits that there are elements of the claimed invention that are not taught or suggest by this earlier publication.

Therefore, the Examiner is respectfully requested to withdraw this rejection.

IV. FORMAL MATTERS AND CONCLUSION

In view of the foregoing, Applicant submits that claims 1-33, all the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

Serial No. 10/725,378
Docket No. YOR920030321US1 (YOR.483)

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Assignee's Deposit Account No. 50-0510.

Respectfully Submitted,



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